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- What is the Feasibility Scoping Meeting (FSM) ?
- Who participates?
- Why is it important?
- After the FSM:
    - Establish management measures
    - Develop alternative plans
    - Preliminary Plan formulation
- Next Step – Alternative Formulation Briefing (TSP)

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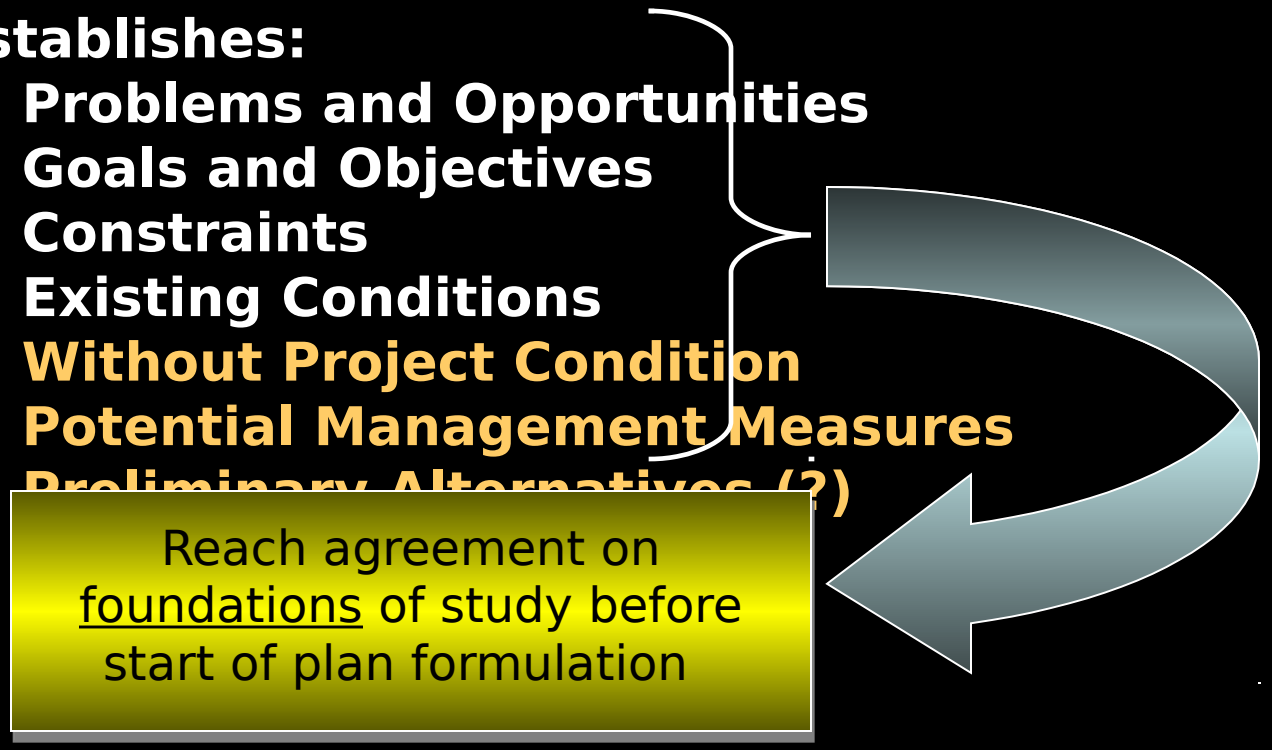
The FSM…why is it important?

- **Major study milestone (*initial HQUSACE involvement*)**
- **Establishes:**
  - ✓ **Problems and Opportunities**
  - ✓ **Goals and Objectives**
  - ✓ **Constraints**
  - ✓ **Existing Conditions**
  - • **Without Project Condition**
  - • **Potential Management Measures**
  - • **Preliminary Alternatives (?)**



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FSM Documentation:

- It's not a REPORT!
- Timing: Due in HQUSACE (Washington, D.C.) - 30-45 days before FSM
- What's Important to Document:
  - Problems (Historical, existing conditions, and future trends)
  - Relationship: problems vs. impacts on resources
    - Cause and effect!
    - What happened first?
  - Agency Views
  - Are these problems solvable?
  - Are there realistic, implementable plans? (by Corps and/or others)
  - Potential management measures

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FSM Documentation:

- ✓ Introduction – Why are we doing this? What's the significance of project?
- ✓ Study Authority
- ✓ Study Area
- ✓ Scope of the Feasibility Study (Phases, Work Groups)
- ✓ Prior Studies and Reports
- ✓ "12-Actions for Change"
- ✓ "Environmental Operating Principals"
- **Existing Conditions:**
  - **Water Quality** (Turbidity, salinity, TSS, nutrients, DO, clarity, etc.)
    - General
    - Historical
    - Recent Field Work / Modeling
    - Results and Conclusions
    - Future trends (w/o action)

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FSM Documentation:

- **Existing Conditions: (Cont.'d):**
  - **Submerged Aquatic Vegetation (SAV)**
    - ✓ General
    - ✓ Historical
    - ✓ Recent Field Work
    - ✓ Results and Conclusions
    - Future trends (w/o action)
  - **Fish and Waterfowl**
    - ✓ General
    - ✓ Historical
    - ✓ Recent Field Work
    - ✓ Results and Conclusions
    - Future trends (w/o action)

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FSM Documentation:

- **Existing Conditions: (Cont.'d):**
  - **Socio-Economics**
  - **Land Use**
  - **Cultural Resources**
  - ✓ **Threatened and Endangered Species**
  - ✓ **System Modeling**

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FSM Documentation:

- **Public Involvement**
  - Discuss program
  - Scoping meetings / Workshops
  - Public Concerns
  - Institutional Involvement
  - Future Coordination requirement

- **Problems and Opportunities:**
  - Next Slides

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Problems and Needs:

- **Currituck Sound has experienced a general decline in water quality with wide fluctuations in the type and quantity of SAVs, changes in fish population and resident and winter waterfowl habitat.**

- **Water quality has declined over the past 50 years primarily due to an increase in turbidity and possibly nutrient loading.**

- **Salinity levels may have frequently exceeded *the threshold for many freshwater species.* (ERDC modeling salinity fluctuations)**

- **SAVs has significantly declined since the 1980s thereby reducing spawning habitat and/or nursery**

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Problems and Needs:

- **Currituck Sound has experienced a general decline in water quality with wide fluctuations in the type and quantity of SAVs, changes in fish population and resident and winter waterfowl habitat.**

- **Fish (largemouth bass) and wintering waterfowl population have declined drastically due to the loss of SAV and possibly salinity (proving toxic to young bass).**

- **Nonpoint source runoff from tributaries carries pollutants and sediments which contribute to reduced water clarity and quality.**

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Opportunities:

- **Develop multi-objective, multi-agency implementable solutions.**
- **Improve water quality by reducing turbidity, suspended solids, and nutrient loading that will create more potential habitat for SAV, a vital component of the ecosystem.**
- **Restore SAV that improve fish and waterfowl habitats a source of food and cover.**
- **Establish multifunctional wetlands, habitats, and dredged material disposal islands that allow proper maintenance of the AIWW, reduce turbidity caused by dredging and propeller wash, and providing protected**

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Goals and Objectives: **National**

General

- **Reduce the declining trend in biological diversity of the nation's waters.**
- **Restore waterfowl and other migratory bird populations to the levels of the early 1970's by protecting about 6 million acres of priority wetland habitats from the Gulf of Mexico to the Canadian Artic.**

Stewardship

- **Increase public understanding of environmental issues and citizen involvement in environmental policy making.**
- **Increase Government Coordination**
- **Public Education**
- **Proper use of fertilizer and pesticides**
- **Provide technical assistance to private landowners to install and manage conservation practices on working farms and**

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Goals and Objectives: National

Stewardship (cont.'d)

- **Disposal of household hazardous wastes (oil, paint, gasoline)**
- **Pet wastes**
- **Feeding of wildlife**
- **Dumping**
- **Reporting spills**
- **Increase opportunities for citizens to communicate with members of environmental agencies and policy-making commissions.**
- **Promote local and regional planning that Protects the Environment and allows for economic growth.**

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Goals and Objectives: Watershed Level

General:

- Maintain, restore, and enhance vital habitat functions to ensure the survival of wildlife and fisheries.
- Promote regional planning to protect and restore natural habitats.

Improve Water Quality:

- Evaluate indicators of environmental stress in the estuary and develop new techniques to better assess WQ degradation.
- Reduce the risk of toxic contamination to aquatic life and human health.
- Reduce pollution from point sources, such as wastewater treatment facilities and industry.
- Reduce sediments, nutrients and toxicants from nonpoint sources.
- Implement a comprehensive basin wide approach to WQ management
- Establish Maximum Daily Loads
- Reissue all discharge permits
- Land use planning
- Improve scientific models of the estuarine system
- Continue long-term comprehensive monitoring of WQ, collecting data

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Goals and Objectives: Watershed Level

IMPROVE WATER QUALITY: (Cont.'d)

- Evaluate indicators of environmental stress in the estuary and develop new techniques to better assess WQ degradation.
- Require better control of nonpoint source pollution and hydrological modifications.

Goals and Objectives: Project Site Level

- Reduce turbidity below maximum acceptable standards in high potential project areas
- Reduce suspended solids by _____%
- Reduce nutrient loading by _____ %
- Increase SAV by ____ % in selected areas of the Sound
- Increase fish and waterfowl habitat values by ____%
- Establish wetlands, marshes, bird rookeries

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FSM Documentation:

- ✓ **Future Directions**
- ✓ **Policy Issues?**
- ✓ **Discussions Topics at FSM**
  - **HQUSACE – Policy Review Comments / Responses**
  - **Model(s) Certification**
  - **Independent Technical Review**
  - **Independent External Peer Review**